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/Brianna Dahlberg/
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Bart Alan MELTZER et al.

Application No.: 09/173,858

Confirmation No.: 4734

Filed: 16 October 1998

Title: **Documents for Commerce in Trading
Partner Networks and Interface
Definitions Based on the Documents**

Group Art Unit: 2178

Examiner: HUYNH, Cong Lac T.

CUSTOMER NO.: 22470

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REQUEST FOR CONTINUED EXAMINATION FOLLOWING APPEAL

Madame:

Following the Decision On Request for Rehearing dated May 21, 2007,
Applicants request entry of the following new evidence and consideration of the
following remarks. A Request for Continued Examination (RCE) accompanies this
paper.

The Claims and their current status are reflected beginning on page 2.

Remarks begin on page 6.

The Evidence Appendix begins on page 36.

CLAIMS APPENDIX

1. (Previously presented) An interface for transactions among nodes in a network including a plurality of nodes which execute processes involved in the transactions, the interface being stored in a computer readable medium, comprising:

a machine readable specification of an interface to transaction processes stored in memory accessible by at least one node in the network, including interpretation information providing a definition of an input document, and a definition of an output document, the definitions of the input and output documents comprising respective descriptions of sets of storage units and logical structures for the sets of storage units.

2. (Original) The interface of claim 1, wherein the interpretation information includes data type specifications for at least one logical structure in the definitions of the input and output documents.

3. (Original) The interface of claim 1, wherein the interpretation information includes at least one data structure mapping predefined sets of storage units for a particular logical structure in the definitions of the input and output documents, to respective entries in a list.

4. (Original) The interface of claim 1, including a repository in memory accessible by at least one node in the network storing a library of logical structures, and interpretation information for logic structures.

5. (Original) The interface of claim 1, wherein the machine readable specification includes a document compliant with a definition of an interface document including logical structures for storing an identifier of a particular transaction, and at least one of definitions and references to definitions of input and output documents for the particular transaction.

6. (Original) The interface of claim 1, wherein the machine readable specification includes a document compliant with a definition of an interface document including logical structures for storing an identifier of the interface, and for storing at least one of specifications and references to specifications of a set of one or more transactions supported by the interface.

7. (Original) The interface of claim 6, wherein the machine readable specification includes a reference to a specification of a particular transaction, and the specification of the particular transaction includes a document including logical structures for storing at least one of definitions and references to definitions of input and output documents for the particular transaction.

8. (Original) The interface of claim 1, wherein the storage units comprise parsed data.

9. (Original) The interface of claim 8, wherein the parsed data in at least one of the input and output documents comprises:

character data encoding text characters in the one of the input and output documents, and

markup data identifying sets of storage units according to the logical structure of the one of the input and output documents.

10. (Original) The interface of claim 9, wherein at least one of the sets of storage units encodes a plurality of text characters providing a natural language word.

11. (Original) The interface of claim 8, wherein the interpretation information for at least one of the sets of storage units identified by a particular logical structure of at least one of the input and output documents, encodes respective definitions for sets of parsed characters.

12. (Original) The interface of claim 8, wherein the storage units comprise unparsed data.

13. (Original) The interface of claim 1, including a repository stored in memory accessible by at least one node in the network of document types for use in a plurality of transactions, and wherein the definition of one of the input and output documents includes a reference to a document type in the repository.

14. (Original) The method of claim 13, wherein the repository of document types includes a document type for identifying participant processes in the network.

15. (Original) The interface of claim 1, wherein the definitions of the input and output documents comprise document type definitions compliant with a standard Extensible

Markup Language XML.

16. (Original) The interface of claim 1, wherein the machine readable data structure including interpretation information comprises a document organized according to a document type definition compliant with a standard Extensible Markup Language XML.

17. – 60. (Cancelled).

61. (Original) A method for programming a commercial transaction in a network, comprising:

defining a machine readable definition of an input document for a node in the network including resources to execute a process in the transaction, and a machine readable definition of an output document for the node, the definitions of the input and output documents comprising respective descriptions of sets of storage units and logical structures for the sets of storage units; and

providing interpretation information for the logical structures to the node.

62. (Original) The method of claim 61, wherein the interpretation information includes data type specifications for at least one logical structure in the definitions of the input and output documents.

63. (Original) The method of claim 61, wherein the interpretation information includes at least one data structure mapping predefined sets of storage units for a particular logical structure in the definitions of the input and output documents, to respective entries in a list.

64. (Original) The method of claim 61, the step of providing interpretation information includes providing a repository in memory accessible by at least one node in the network storing a library of logical structures, and interpretation information for logic structures.

65. (Original) The method of claim 61, including defining a machine readable specification of an interface including a document compliant with a definition of an interface document including logical structures for storing an identifier of a particular transaction, and at least one of the definitions and references to the definitions of the input and output document.

66. (Original) The method of claim 61, wherein the storage units comprise parsed data.

67. (Original) The method of claim 66, wherein the parsed data in at least one of the input and output documents comprises:

character data encoding text characters in the one of the input and output documents, and

markup data identifying sets of storage units according to the logical structure of the one of the input and output documents.

68. (Original) The method of claim 67, wherein at least one of the sets of storage units encodes a plurality of text characters providing a natural language word.

69. (Original) The method of claim 67, wherein the interpretation information for at least one of the sets of storage units identified by a particular logical structure of at least one of the input and output documents, encodes respective definitions for sets of parsed characters.

70. (Original) The method of claim 66, wherein the storage units comprise unparsed data.

71. (Original) The method of claim 61, wherein the definitions of the input and output documents comprise document type definitions compliant with a standard Extensible Markup Language XML.

72. (Original) The method of claim 61, including:

providing a parser to generate event signals in response to logical structures in the definition of the input document; and

providing event listener programs which respond to the event signals to execute the process.

REMARKS

Claims 1-16 and 61-72 are pending in this action. They were previously rejected under 35 USC 103(a) as being unpatentable over McKendrick, *Banks begin to play with XML*, 11 Bak Technology News, Sep.1998, 6-7, in view of W3C, *Extensible Markup Language (XML) 1.0*, Feb. 10, 1998, 1-37. These rejections stand after appeal, subject to reconsideration in light of new evidence at the Board's invitation.

Appeal Recap

This case has been pending on appeal. The Board issued its Decision on Appeal on August 31, 2006 ("DoA").

During the appeal, only the independent claims 1 and 61 were separately argued. Accordingly, the Board did not address limitations of any of the dependent claims in its opinion.

Applicants responded to the opinion by filing an extensive Appeal Request for Rehearing ("RfR"), including copies of additional publications not previously of record. On May 21, 2007, the Board granted rehearing but denied the relief requested. The Board's Decision On Request for Rehearing ("DoRR") declined to consider the additional publications submitted for rehearing and invited Applicants to submit the new evidence to the Examiner with a request for continued examination.

We call the Examiner's attention to our filing of a petition and second request for rehearing. If the petition under Rule 183 to permit a second rehearing is granted, the Board may retain jurisdiction. The petition should have been decided by the time this RCE comes up on the Examiner's bi-weekly docket.

One of the positions asserted in the petition for second rehearing is that first rehearing was decided on new grounds and, therefore, the Decision On Request for Rehearing should not be considered final for purposes of judicial review.

Related Prosecution

This case is being prosecuted in parallel with application no. 09/633,365, pending before Examiner Kenneth Coulter. A number of rejections have been made and withdrawn. The latest rejection is dated February 8, 2007. The related case may be considered of interest to the Examiner, because of similar elements in the claims of the cases.

New Evidence that Strengthens the Declarations and Explains how the Declarations Would be Understood by One of Skill in the Art

The Board's original decision (DoA at 8-9) calls for more evidence about the "first draft of CBL" and treats the issue as one personal to these inventors. We responded by submitting Google searches and historical texts that explained how these inventors were educating those of ordinary skill in the art to understand "CBL" at the time this application was filed. We submitted:

- Glushko, *Implementing Domain-specific Commerce Languages with a Common Business Library* (delivered July 25, 1998) 32 pp.;
- Glushko et al., *An XML Framework for Agent Based E-Commerce*, Communications of the ACM, Vol. 42, No. 3, pp. 106-114 (Mar. 1999), 9 pp.;
- Glushko and McGrath, Document Engineering: Analyzing and Designing Documents for Business Informatics and Web Services (MIT Press 2005), 2 pp. excerpt;
- Sall, Kenneth B., *XML Family of Specifications: A Practical Guide* (Addison Wesley 2002), 1 pp.'

This evidence is resubmitted with this RCE and accompanied by:

- LaPlante, Glushko et al., *Document Standards & Technologies for Commerce Applications* (delivered Sept. 1, 1998) accessed at http://www.google.com/search?q=cache:hq5pefHRwksJ:seminars.seybol.dreports.com/1998_san_francisco/ETAPE_26.html+%22cbl+1.0%22+veo&hl=en&gl=us&ct=clnk&cd=7 on Oct. 26, 2006, 28 pp.;
- xCBL.org, *About xCBL* (copyright 2000) accessed at <http://www.xcbl.org/about.shtml>, on July 20, 2007, 2 pp.;
- Allen, *Common Business Library (CBL)* (May 1999) accessed at <http://www.infoloom.com/gcaconfs/WEB/granada99/all.HTM> on July 20, 2007, 9 pp.;
- Bosak, *UBL Update*, OASIS Symposium on the Future of XML Vocabularies, Slide 3 (Apr. 25, 2005) viewed at www.oasis-open.org/events/symposium_2005/slides/bosak.pdf on July 20, 2007, 10 pp.;
- Meltzer and Glushko, *XML and Electronic Commerce: Enabling the Network Economy*, SIGMOND Record, Vol. 27, No. 4, 21-24 (Dec. 1998), 4 pp.;

This material approaches 100 pages of evidence to explain CBL and show that Glushko possessed an actual reduction to practice prior to McKendrick, as will be discussed below.

The Board (DoRR at 7) considered what we submitted to be new evidence and invited Applicants to submit it with an RCE. "We note that if Appellants wish to have the newly presented evidence considered by the Examiner, the proper procedure is to file a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114." Following this direction, the evidence is now of record and to be considered without any prejudice from the Board.

Review of Glushko's Slides, 1999 Article and 2005 Book

We used Google¹ to find a presentation by inventor Glushko that predates McKendrick, and explains use of CBL as asserted in the Veo status report, Exhibit A. We also located scholarly descriptions of these inventors' work on CBL.

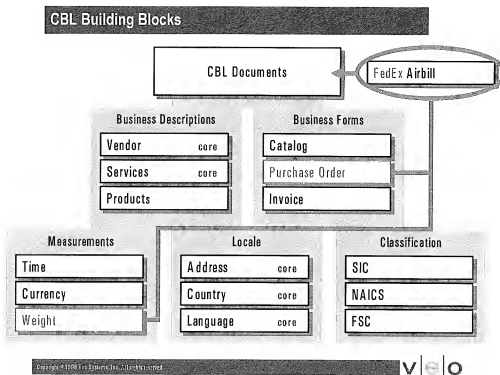
On July 25, 1998, the International Workshop on Component-based Electronic Commerce was held at the Fisher Center for Management & Information Technology, Haas School of Business, UC Berkeley. The conference program, accessed at <http://groups.haas.berkeley.edu/citm/conferences/cec/> on October 26, 2006, lists inventor Meltzer as the keynote speaker and a closing panelist. It lists inventor Glushko as a speaker.

Glushko's slides use CBL document schemas in an interface definition data structure that includes input and output documents. Glushko, *Implementing Domain-specific Commerce Languages with a Common Business Library*, Slides 29-31 (delivered July 25, 1998) accessed at <http://groups.haas.berkeley.edu/citm/conferences/cec/Presentations/Session3/glushko.pdf> on October 26, 2006. We reproduce and explain three of the slides, attaching all of the slides as evidence.

Purchase orders and invoices are both mentioned in "CBL Building Blocks" slide 29, reproduced below, which illustrates how Federal Express might use CBL to create

¹ Commerce One declared bankruptcy years ago and liquidated its physical assets. The company's design and programming records were not transferred to the present assignee of record, Open Invention Network ("OIN"). The mission of OIN to preserve the Linux eco-system against potential IP challenges is generally described at www.openinventionnetwork.com.

an XML version of its airbill by customizing a generic purchase order DTD with specific information about shipping weight.



This slide matches FIG. 10 of the application.

Slide 30, “Business Services Described Using CBL” (below) is an example of an interface definition data structure written in XML. The two service interfaces defined are named Submit Order and Track Order. The Submit Order service references an input “po.dtd” and an output “poack.dtd”. These “dtd” files are document schemas. (Notice that this Submit Order service accepts a purchase order as input and returns an acknowledgement as output, not an invoice.)

Business Services Described Using CBL

```
<service>
<service.name>Order Service</service.name>
<service.location>www.veosystems.com/order</service.location>
<service.op>
    <service.op.name>Submit Order</service.op.name>
    <service.op.inputdoc>po.dtd</service.op.inputdoc>
    <service.op.outputdoc>poack.dtd</service.op.outputdoc>
</service.op>
< service.op>
    < service.op.name>Track Order</service.op.name>
    <service.op.inputdoc>request.track.dtd<service.op.inputdoc>
    <service.op.outputdoc>response.track.dtd<service.op.outputdoc>
</service.op>
</service>
```

This example matches LISTING 5 of the CD-ROM appendix to the revised (reformatted) specification, which appeared on page 45 of the original specification (before we moved source code to an appendix.) This code, placed in memory accessible to a node on a network, is an **actual reduction to practice** of some claims, as discussed below.

Glushko's actual reduction to practice, presented in public two months before McKendrick, was used to show those of ordinary skill in the art how to use CBL to define an interface. One exemplary interface specification data structure is for an order service that receives and acknowledges purchase orders.

Slide 31, "CBL status" (reproduced below) explains that CBL already had been used in demonstration applications. This corroborates the inventors' testimony in declaration paragraph 3 that documents and registries were working for their intended purpose.

CBL Status

- CBL v1.0 contains a few dozen DTDs and modules developed from analysis of ISO, ANSI X.12, other standards
- CBL currently being used by Veo Systems in demonstration applications (Project Seitai, GSA catalog interoperability)
- CBL to be starting “fodder” for CommerceNet-sponsored WG to develop open framework for interoperability of domain-specific commerce languages (just getting under way)

These three slides part of what Glushko used to present the new technology and explain how Veo was using CBL in interface specification data structures. With the benefit of Glushko's slides, one of ordinary skill in the art could read the status report and recognize that these inventors were using CBL as claimed, months before McKendrick's popular press report.

A 1999 article by inventors Glushko and Meltzer, written with Dr. Jay Tenenbaum of CommerceNet, also gives 1997 as the year for Veo's technology. Glushko, et al., *An XML Framework for Agent Based E-Commerce*, Communications of the ACM, Vol. 42, No. 3, pp. 106-114 (Mar. 1999). The authors explained their work, at 108: “Conceived originally as a CORBA-based interoperability framework, the eCo System architecture was **recast in 1997 on an XML foundation**, due to XML's simplicity and widespread adoption ...” This article explains Glushko slides 29 and 30, at pages 112-13.

In a textbook that he co-authored, Professor Glushko again referred to the 1997 work on CBL. “The earliest effort to attack the problem of semantic overlap among XML vocabularies for business applications was the XML **Common Business Library**, whose **first version was released in 1997**.” Glushko and McGrath, *Document Engineering: Analyzing and Designing Documents for Business Informatics and Web Services*, at 130 (MIT Press 2005)

Review of Sall's Book, the Seybold Transcript, xCBL.org, Allen and Bosak

A reference volume by Kenneth B. Sall, *XML Family of Specifications: A Practical Guide*, at 1073 (Addison Wesley 2002) provides the following glossary-like description of the xCBL e-commerce specification, which again mentions 1997:

Commerce One's XML Common Business Library promotes "cross-industry exchange of business documents such as product descriptions, purchase orders, invoices, and shipping schedules." Another goal is "to make the business documents, forms and messages that flow between businesses comprehensible to each business no matter what computer system is used."

The insightful CBL effort predates the XML 1.0 Recommendation, dating back to 1997. xCBL uses a mature schema specification (SOX) which is a forerunner of the W3C's XML Schema Standard. See <http://www.xcbl.org/> for details.

(emphasis added). From this description, we see that "CBL" could be understood by those of skill in the art without any need to attach a copy of the first version of CBL to the declarations.

A transcript of a panel discussion on September 1, 1998 further mentions CBL and provides insights into the level of skill in the art. The Panel was part of the Seybold San Francisco/Publishing '98 Web Publishing Conference, entitled "Document Standards & Technologies for Commerce Applications". Glushko was careful about what he said and what he avoided talking about.

Mr. Glushko: ... So we've got to find ways to define those common document models for different communities of commerce. And that's what domain-specific languages are all about, so we're seeing a lot of activity here. ... This is a great idea but it's also a terrible idea. You see, XML makes easy-to-create markup languages. That's the good thing. The bad thing is that it makes it easy to create mark-up languages. And the value of a mark-up language or any language in general depends on the number of people that speak it ... **If we're not lucky, the whole world will invent its commerce language and we'll have the same problem of the Tower of Babel. We'll have no languages that are mutually intelligible.**

So **our vision** of how this works is as follows: Your company will publish on its Web site essentially a little corner that is the XML corner that will say here's how I want to do business electronically with you. I want to have a service, I'll call it the ordering service, that has two transactions. The first one is a submit transaction, the second one is a transaction, and basically, I'm saying **if you send me a document that conforms to po.dtd, a purchase order, I will send you back a purchase order acknowledgement.** And

these DTDs could be defined in some global registry or in some commerce registry or some other places all over the world—they should be freely available—that simply say how you want to do business automatically. Well, this is CBL. We have basically just released it to the world this week and after having used it in several demonstration projects, one with the federal government and one with the consortium of Japanese companies, and we have decided to find a way to make this most publicly available and most robust as possible.

Now we actually have a technology business wrapped around this, which I won't say very much about except that the idea is that if you have common business building blocks, you can define your own document models, expose them to the world, and then have a process which takes those things in and out of your legacy systems.

Audience: Is XML itself stable politically and otherwise?

Mr. Glushko: I sort of think XML is stable enough. There's a proposed recommendation from the W3C that came out in February that people are doing. I think there's always—you could always take a specification and try to aggressively implement or we could say let's use the sort of core stuff, which is not likely to change, and what we're trying to solve is agreement on basic tag sets to simplify the concept, and **our library uses primitive concepts and actually doesn't push the envelope in terms of using XML** as a specification. We're doing things that you could do on your Web site today with very common, easy tools. We're not pushing the envelope with XML. **XML is undergoing a lot of changes. There's a major effort coming down the road which is an XML schema language,** which would let you describe more data typing and semantic information inside of the XML definition, and that will be really important for commerce.

Another source of information about CBL is the organization xCBL.org, which has continued the development of standard business document interfaces even after Commerce One's demise. On their website, <http://www.xcbl.org/about.shtml>, viewed July 20, 2007, the following historical information appears:

The Evolution of xCBL

xCBL began its life at Veo Systems in 1997. At that time it was called simply CBL, and was a research project partly funded by the Department of Commerce's Advanced Technology Program. CBL was developed to test the limits of XML for e-commerce and to identify requirements for XML design, development, and transaction tools and platforms. Subsequently, Veo invented the first object-oriented XML schema language; SOX, the Schema for Object-Oriented XML; as a result of the lessons learned in the first version of CBL.

This confirms that CBL development was well under way prior to the May 11, 1998 date given in the declarations.

The inventor who was not available to sign declarations also published an account of the development of xCBL in 1999, accessed at <http://www.infoloom.com/gcaconfs/WEB/granada99/all.HTM>, on July 20, 2007:

I began work on CBL in August 1997. Version 1.1 was released in September 1998, and version 1.2, which is represented in both DTD (Document Type Definition) syntax and SOX, was completed in November 1998. At that point the specification had done its job in providing proof of concept, both to us and to the many who have downloaded the distribution; CBL is currently being employed only as a reference model. Further work is desirable to harmonize CBL semantics with those of EDI (both the X12 and EDIFACT flavors), and with other specifications that have appeared since my CBL work began. In the meantime, we've used a simplified subset of CBL for several successful demo projects.

The 1997 development date is recited yet again.

Jon Bosak, a legendary Sun Microsystems Distinguished Engineer who organized and led the working group that created XML, in April 2005 placed the release of CBL v1.0 as 1Q1998, consistent with the declarations. See, *UBL Update*, OASIS Symposium on the Future of XML Vocabularies, slide 3 (Apr. 25, 2005) viewed at www.oasis-open.org/events/symposium_2005/slides/bosak.pdf on July 20, 2007. (Interestingly, one of his slides shows the many steps and processes that are between order and invoice, in a system design.) Bosak's date for release of CBL v1.0 is repeated in various OASIS/UBL materials.

Application of the New Evidence to Understanding the Declarations

The evidence above establishes developmental work by Veo on CBL in 1997 (Glushko; Sall; xCBL.org; Allen), a release of v1.0 in early 1998 (Bosak), and general

release of v1.1 by early September 1998 (Allen; Glushko). The new evidence illustrates and explains CBL.

The evidence that illustrates CBL also establishes that Glushko showed an actual reduction to practice of a machine readable interface specification to transaction processes that provided a definition of an input document and a definition of an output document, in a single XML-coded data structure. He showed the public this actual reduction to practice months prior to the September publication of McKendrick, on July 25, 1998. We will read Slide 30 on the claims, below.

This evidence helps the Examiner understand the declarations and answers the Board's question, what was in the first draft of CBL? These inventors' actual reduction to practice is illustrated by Slide 30, which is found in this patent application as LISTING 5 of the CD-ROM appendix to the revised (reformatted) specification, which appeared on page 45 of the original specification (before we moved source code to an appendix.)

Reading Slide 30 on the Claims

One criticism that the Board had was that only the independent claims were addressed in our prior exercise of reading evidence (declarations) on the claims. This time, we'll walk through all of the claims.

Regarding use of evidence other than a Rule 131 affidavit to establish inventors' date of reduction to practice, we cite the statute § 102 and *Ex parte Foster*, 105 O.G. 261 (Comm'r Pat. 1903) (copy attached). We point out that MPEP § 715.04 cites *Ex parte Foster* as good authority, despite its early date. The statute only disqualifies claims from being granted if a reference predates the inventors' work, it does not limit the proof to Rule 131 or any particular evidence. The case *Ex parte Foster* makes it clear that Rule 131 is not an exclusive means of presenting evidence regarding inventors' work prior. The MPEP continues to endorse *Ex parte Foster*, even though it was decided 104 years ago. A publication by the inventors is a natural way to prove a date of invention prior to the application filing.

Claim 1: Slide 30 is a machine readable specification, even in a Powerpoint presentation. It was in a machine readable medium when the Powerpoint presentation was given. It defines an interface to transaction processes (1) for receiving a purchase order and responding with a purchase order acknowledgement and (2) requesting order

tracking and responding with status information. The PO and ACK are both XML documents, as are the request and response. The input document definitions are referenced by "po.dtd" and "request.track.dtd", which are data type definition (dtd) files. The output document definitions are referenced by "poack.dtd" and "response.track.dtd". The context of the slides and other remarks by Glushko including ongoing demonstration projects make it clear that this interface was hosted and accessible to a plurality of nodes on a network, in the development environment from which it was borrowed for the Powerpoint presentation. Therefore, Slide 30 removes McKendrick as a reference that can be applied against claim 1, because Slide 30 is an actual reduction to practice on public display before McKendrick.

Claim 2: The Examiner relies on the XML specification for limitations of claim 2 that go beyond claim 1. That specification was in use as part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claim 2.

Claim 3: The Examiner relies on the XML specification for claim 3 and that specification was in use as part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claim 7.

Claim 4: The Examiner relies on general principle for claim 4 and general principle is part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claim 4.

Claim 5: The identifier of a particular transaction appears in Slide 30 as "Submit Order" and "Track Order." The references to definitions of the input and output documents are the dtd file names.

Claim 6: The identifier of an interface coincides with the transaction name in Slide 30, appearing as "Submit Order" and "Track Order." The references to definitions of the input and output documents are the dtd file names.

Claim 7: The Examiner relies on either general principle or the XML specification for claim 7 and both general principle and that specification was in use as part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claim 3.

Claims 8-12: The Examiner relies on the XML specification for claims 8-12 and that specification was in use as part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claims 8-12.

Claim 13: The Examiner relies on general principle for claim 13, as she did for claims 4-5, and general principle is in use as part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claim 13.

Claim 14: The Examiner relies on the XML specification for claim 14 and that specification was in use as part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claim 14.

Claim 15: The dtd files referenced in Slide 30 are recognizable as compliant with a standard Extensible Markup Language XML.

Claim 16: The data structure that appears in Slide 30 is recognizable as compliant with a standard Extensible Markup Language XML.

Claim 61: Slide 30 is a machine readable specification, even in a Powerpoint presentation, which corresponds to the result of the defining step. It was in a machine readable medium when the Powerpoint presentation was given. It defines input and output documents. The PO and ACK are both XML documents, as are the request and response. The input document definitions are referenced by "po.dtd" and "request.track.dtd", which are data type definition (dtd) files. The output document definitions are referenced by "poack.dtd" and "response.track.dtd". The context of the slides and other remarks by Glushko make it clear that this definition was to be made available to a requesting node in a network. Therefore, Slide 30 removes McKendrick as a reference that can be applied against claim 61, because Slide 30 demonstrates reduction to practice of the claimed method and public display before McKendrick.

Claims 62-64: The Examiner relies on the XML specification for claims 62-64 and that specification was in use as part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claims 62-64.

Claim 65: The identifier of a particular transaction appears in Slide 30 as "Submit Order" and "Track Order." The references to definitions of the input and output documents are the dtd file names.

Claims 66-70: The Examiner relies on the XML specification for claims 66-70 and that specification was in use as part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claims 66-70.

Claim 71: The dtd files referenced in Slide 30 are recognizable as compliant with a standard Extensible Markup Language XML.

Claim 72: The Examiner relies on general principle for claim 72 and general principle is part of Slide 30, so Slide 30 shows enough to remove McKendrick as a reference regarding claim 72.

In this section, we have shown that Glushko Slide 30, which is new evidence of prior invention, can be read on each and every one of the pending claims. This evidence of prior invention removes McKendrick as a reference against these claims.

Reading the Declarations Combined with the New Evidence on the Claims

The Board invited Applicants to resubmit their evidence and arguments regarding how to read the declarations: “[I]f Appellants wish to have the newly presented evidence considered by the Examiner, the proper procedure is to file a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114.” (DoRR at 7) This section proceeds as suggested and combines the Declarations with new evidence.

Because the Board did not understand the initials “CBL” (DoA at 8-9), which appear in Exhibit A, we have submitted nearly 100 pages of CBL-related evidence. It clarifies the following excerpt::

development of the Common Business Language and the eCo runtime platform. CNgrouph has made substantial progress in both during the first quarter.

CBL (Common Business Language) enables semantic interoperation and integration of different commerce applications. CBL defines the metadata for making a business and its services a self-describing "eCo component"; it enables the intelligent query and aggregation of product catalogs and descriptions; it represents the forms and messages needed for commercial transactions; and it can be used to "wrap" formats and messages to make legacy applications "eCo-compliant". Specific technical activities performed during the first quarter as part of CBL R&D included:

1. Development of a "design philosophy" for overall scope and approach of CBL
2. Analysis of existing standards for common information types and semantic primitives. Where appropriate, semantics have been drawn from the UN/EDIFACT Basic Semantic Unit data dictionary and certain ISO and IETF standards (e.g., for geographical location, date and time, currency, weights and measures).
3. Analysis of proposed metadata frameworks for Internet resources (Dublin Core, RDF, MCF).
4. Analysis of semantics of commerce as embodied in EDI X12 transaction sets, Uniform Commercial Code, and in proposals like the Open Buying on the Internet specification.
5. Creation of first draft of CBL to support the requirements of Project Seitai (described above in "Project Baseline").
6. Determining an approach for CBL support of industry applications (and for ATP demonstrations in particular).

The development of CBL has strongly shaped the requirements for the eCo runtime platform. XML is now at the core of the eCo architecture, and the eCo server can be thought of as an XML processing platform on which CBL is the reference application. The use of XML inside the eCo platform as well as in its applications has enabled the server to be more capable and extensible than we conceived at the time of the proposal.

In particular, the eCo server has now subsumed the registry and query services that had been envisioned as part of the Taxonomy of Everything in our proposal. The TOE was proposed as a scalable, distributed registry service for implementing Internet-based directory and translation services, and a key architectural building block and core task in the Phase 1 plan.

From the description in this excerpt of CBL, it is clear that the new evidence refers to the same CBL as the Exhibit A above, which predates McKendrick by several months. The Board specifically asked about the "first draft of CBL to support the requirements of Project Seitai," in numbered item 5. (DoA at 8-9; DoRR at 2) From the new evidence provided, we see that CBL was a way of defining a single document, for instance, a purchase order. CBL is one of the building blocks that led to the interface specification data structure illustrated in Slide 30. Project Seitai was well under way as a demonstration project by July 1998.

We focus the Examiner's attention on the last two paragraphs of the excerpt, which switch from CBL to the runtime platform. "XML is now at the core of the eCo architecture and the eCo server can be thought of as an XML processing platform on which CBL is the reference application. The use of XML inside the eCo platform as well as in its applications has enabled the server to be more capable than we conceived at the time of the proposal. [¶] In particular, the eCo server has now subsumed the registry and query services ..." What does this mean? First, work on CBL began in 1997 and the first draft of CBL was up and running in "1Q98". (Bosack) Second, CBL was a tool for defining a document such as a Purchase Order or PO Acknowledgement. (Glushko Slide 28) Third, XML was being used to define processing by the eCo server, which was recast on an XML foundation in 1997. (Glushko March 1999 at 108) Fourth, the eCo server included a registry. (Exhibit A) Fifth, Glushko was publicly showing a fragment of a registry entry in July 1998, an actual reduction to practice. (Glushko Slide 30)

It takes some decoding, which benefits from the wealth of new evidence, but this terse status report excerpt corroborates the declarations, which we will now read on the claims.

Claim 1: The declarations provide testimony, a form of evidence that a registry had been implemented and used in a method before March 11, 1998. The registry and method worked for establishing transactions among trading partners in a network. The specifications included definitions of input documents and output documents. The specifications were in machine readable memory and accessible upon request to nodes in a network. This reads the declaration evidence on claim 1. (The specifications also included services offered by the trading partners.)

The particular statements in the declaration are corroborated by Exhibit A in light of the new evidence. Implementation of the registry is specifically mentioned in Exhibit A, "the eCo server has now subsumed the registry". The registry is depicted in Glushko Slide 23. The registry is also described by Glushko in the September 1998 Seybold conference transcript, quoted above. CommerceNet, a non-profit with ties to Commerce One, began rallying members world wide around CBL version 1.1 in September 1998, per Meltzer 1998, p. 24. The declaration evidence that a registry was implemented is consistent with a great deal of corroborating evidence.

The registry used CBL, which is mentioned throughout Exhibit A. This use of the first draft of CBL is consistent with several sources, including the Glushko slides, Sall and Allen. Glushko Slide 31 recounts that the technology had been used in demonstration Project Seitai. Public reporting of a demonstration project using this technology in July corroborates the declaration testimony that an actual reduction to practice was accomplished prior to March 11, - a specific date for launch of Project Seitai is not necessary to lend credibility to the declaration, especially when the report was made at an industry conference. The declaration testimony that input and output document definitions were used in the registry is thoroughly corroborated, once CBL is understood.

Registry entries included both an input and output document, as an architecture for "loosely coupling" processes. The declarations make reference to both input and output documents, which is strongly corroborated by Glushko Slide 30 and LISTING 5 in the appendix of this application. Depictions and descriptions of a registry interface specification in Glushko Slide 23, In Glushko's September 1998 Seybold panel remarks and in Glushko 1999 at 113 consistently include both an input and output document in a registry entry. This goes beyond the single document descriptions which CBL provided. In Glushko 1999 at 108, use of XML in the registry is described as a significant improvement over attempts to develop an architecture using CORBA. This praise for using XML instead of CORBA is even stronger in Exhibit A, which recounts that "use of XML inside the eCo platform as well as in its applications has enable the server to be more capable and extensible than we conceived ..." Accordingly, the declaration testimony that registry entries included both an input document and output document is thoroughly corroborated.

Overall, there is much new evidence about the development timeline which corroborates the declaration testimony. The Examiner now has two ways to disqualify McKendrick as a reference against claim 1: Slide 30 is a public display of an actual reduction to practice and the declaration testimony now is thoroughly corroborated.

Claims 2-4: The Examiner relies on the XML specification for features of claims 2-4 that go beyond claim 1. The use of XML is highlighted by Exhibit A which is part of the declarations. All of the new evidence describes these inventors' early and ground breaking use of XML for e-commerce.

Accordingly, attachment of Exhibit A to the declarations shows enough to remove McKendrick as a reference regarding claims 2-4.

Claims 5-6: Definitions of business services offered are expressly called out in the declarations, in addition to input and output documents. As corroboration, the identifier of a business service appears in Slide 30 as "Submit Order" and "Track Order." Each general discussion of these inventors' work mentions identifying the transaction and service to be requested. In Exhibit A, support for query services implies an identification of a particular transaction or service being offered, given the new evidence.

Accordingly, the testimony in the declarations is corroborated by new evidence and Exhibit A sufficiently to remove McKendrick as a reference regarding claims 5-6.

Claim 7: The Examiner relies on either general principle or the XML specification for claim 7. Both general principle and the XML specification were in use as part of the declarations including Exhibit A, so the declarations and Exhibit A show enough to remove McKendrick as a reference regarding claim 7.

Claims 8-12: The Examiner relies on the XML specification for limitations of claims 8-12 that go beyond claim 1. The XML specification was in use as part of the declarations including Exhibit A, so the declarations and Exhibit A show enough to remove McKendrick as a reference regarding claims 8-12.

Claim 13: The Examiner relies on general principle for claim 13, as she did for claims 4-5, and general principle is in use as part of the declarations including Exhibit A, so the declarations and Exhibit A show enough to remove McKendrick as a reference regarding claim 13.

Claim 14: The Examiner relies on the XML specification for claim 14 and that specification was in use as part of the declarations including Exhibit A, so the declarations and Exhibit A show enough to remove McKendrick as a reference regarding claim 14.

Claim 15: The references to XML in Exhibit A are recognizable as compliant with a standard Extensible Markup Language XML.

Claim 16: The references to XML in Exhibit A are recognizable as compliant with a standard Extensible Markup Language XML.

Claim 61: This claim is easier than claim 1, because the declarations describe a method and this is a method claim. The declarations provide evidence that a registry had been implemented and used in a method. It worked for establishing transactions among trading partners in a network. Implementing the registry included defining machine readable specifications that included definitions of input and output documents. The specifications were in machine readable memory and accessible upon request to nodes in a network. This reads the declaration evidence on claim 61.

The particular statements in the declaration are corroborated by Exhibit A in light of the new evidence. Implementation of the registry is specifically mentioned in Exhibit A, "the eCo server has now subsumed the registry". The registry is depicted in Glushko Slide 23. The registry is also described by Glushko in the Sept. 1998 Seybold conference transcript, quoted above. CommerceNet, a non-profit with ties to Commerce One, is identified as an operator of an industry registry of service definitions, illustrated as including input and output documents in Gushko 1999 at 113. CommerceNet began rallying members world wide around CBL version 1.1 beginning in September 1998, per Meltzer 1998, p. 24. The declaration evidence that a registry was implemented is consistent with a great deal of corroborating evidence.

The registry used CBL, which is mentioned throughout the excerpt. This use of the first draft of CBL is consistent with several sources, including the Glushko slides and Allen. Glushko Slide 31 recounts that the technology had been used in demonstration Project Seitai. Public reporting of a demonstration project using this technology in July corroborates the declaration testimony that an actual reduction to practice was accomplished prior to March 11, - a specific date for launch of Project Seitai is not necessary to lend credibility to the declaration, especially when the report was made at an industry conference. The declaration testimony that definitions of documents were part of the registry is thoroughly corroborated, once CBL is understood.

Registry entries included both an input and output document, as an architecture for loosely coupling processes. The declarations make reference to both input and output documents, which is strongly corroborated by Glushko Slide 30 and LISTING 5 in the appendix of this application. Depictions and descriptions of a registry interface specification in Glushko Slide 23, Glushko's Sept. 1998 Seybold panel remarks and

Glushko 1999 at 113 consistently include both an input and output document in a registry entry. This goes beyond the single document descriptions on which CBL focused. In Glushko 1999 at 108, use of XML in the registry is described as a significant improvement over attempts to develop an architecture using CORBA. This praise for using XML instead of CORBA is even stronger in Exhibit A, which recounts that "use of XML inside the eCo platform as well as in its applications has enable the server to be more capable and extensible than we conceived ..." Accordingly, the declaration testimony that registry entries included both an input document and output document is thoroughly corroborated.

Overall, there is so much new evidence about the development timeline which corroborates the declaration testimony that the Examiner has two ways to disqualify McKendrick as a reference against claim 1: Slide 30 is a public display of an actual reduction to practice and the declaration testimony is now thoroughly corroborated.

Claims 62-64: The Examiner relies on the XML specification for features of claims 62-64 that go beyond claim 61. The use of XML is highlighted by Exhibit A which is part of the declarations. All of the new evidence describes these inventors' early and ground breaking use of XML for e-commerce.

Accordingly, attachment of Exhibit A to the declarations shows enough to remove McKendrick as a reference regarding claims 62-64.

Claim 65: Definitions of business services offered are expressly called out in the declarations, in addition to input and output documents. As corroboration, the identifier of a business service appears in Slide 30 as "Submit Order" and "Track Order." Each general discussion of these inventors' work mentions identifying the transaction and service to be requested. In Exhibit A, support for query services implies an identification of a particular transaction or service being offered, given the new evidence.

Accordingly, the testimony in the declarations is corroborated by new evidence and Exhibit A sufficiently to remove McKendrick as a reference regarding claim 65.

Claims 66-70: The Examiner relies on the XML specification for claims 66-70. The XML specification was in use as part of the declarations including Exhibit A, so the declarations and Exhibit A show enough to remove McKendrick as a reference regarding claims 66-70.

Claim 71: The references to XML in Exhibit A are recognizable as compliant with a standard Extensible Markup Language XML.

Claim 72: The Examiner relies on general principle for features of claim 72 that go beyond claim 61. This general principle is part the declarations including Exhibit A, so the declarations including Exhibit A show enough to remove McKendrick as a reference regarding claim 72.

Considering McKendrick with New Evidence

At the Board's invitation, Applicants take this opportunity to present new evidence relevant the level of ordinary skill in the art and to the meaning and significance of the brief quotation attributed to Microsoft. The new evidence includes:

- *Registries and Repositories – XML/SGML Name Registration* (about Nov. 1998) accessed at <http://xml.coverpages.org/registryColl.html> on October 26, 2006, 30 pp.
- Microsoft Corp., *XML: Enabling Next-Generation Web Applications* (Apr. 3, 1998) accessed at <http://msdn.microsoft.com/archive/default.asp?url=/archive/en-us/dnarxml/html/xmlwp2.asp> on July 21, 2007, 15 pp.
- Bosworth, General Manager, Microsoft Corp., *Europe '98, Microsoft's Vision for XML* (May 18-21, 1998) viewed at <http://xml.coverpages.org/bosworthXML98.html> on July 21, 2007, 10 pp.
- Winer, *XML-RPC for Newbies* (July 14, 1998) viewed at <http://www.scripting.com/davenet/1998/07/14/xmlRpcForNebies.html> on July 21, 2007, 6 pp.
- Walsh, *Microsoft spearheads protocol push*, InfoWorld Electric (July 10, 1998) viewed at <http://infoworld.com/cgi-bin/displayStory.pl?98071.whsoap.htm> on July 21, 2007, 2pp.
- Merrick et al., US 7,028,312, *XML Remote Procedure Call (XML-RPC)*.

We also will rely on some of the evidence previously discussed, as it bears on the level of ordinary skill.

Ex Parte Jud Explains how to Weigh Level of Ordinary Skill Evidence

First, we direct the Examiner's attention to *Ex parte Jud*, Appeal No. 2006-1061 (Jan. 30, 2007) (expanded panel, informational opinion) (copy attached), which discusses the level of ordinary skill in the art. Designation of this opinion as "informational" makes it persuasive, if not binding. The informational designation was created to streamline the procedure for designating noteworthy opinions. It is easier for the Chief Administrative Judge to designate an opinion as informational than as precedential, which requires an affirmative vote by a majority of the active judges of the BPAI, which recently was 59 judges.

In *Ex parte Jud*, at 2-3, the Board reiterated the *Graham* factors for nonobviousness analysis, which include the level of ordinary skill in the art.:

The Supreme Court has elaborated that:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the **level of ordinary skill in the pertinent art** resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. *Graham v. John Deere Co.*, 383 U.S. 1, 17-1 8 (1966). These four determinations have come to be known as the Graham factors.

The Board discussed the value that it finds in three categories of evidence: the application itself, publications and testimony.

The Board afforded the applicant's disclosure significance for its level of detail. Regarding the application, at 4:

The disclosure is particularly helpful when it describes the background to the invention and the applicant's contribution to the art. Care must be exercised, however, to ensure that the applicant's contribution is not itself mistaken as an admission regarding the pre-existing knowledge and skill in the art.

The Board goes on to comment that what the applicant disclosed in order to enable the new technology helps to determine the level of ordinary skill in the art. *Id.* at 4-5. An enabling disclosure gives a sense of how much teaching it takes for one of ordinary skill in the art to understand and practice the new technology, establishing at least a floor on the level of skill in the art. Accordingly, a short disclosure suggests an easily understood

innovation; a long disclosure suggests a new development that must be carefully explained in order for one of ordinary skill to understand.

The second category is documentary evidence or references, at 5.

References are typically indirect in their teachings regarding the skill level in the art. Moreover, the teachings may sometimes be incomplete since explaining the skill level in the art is rarely the intended purpose of a reference. References are generally entitled to great weight, however, because they are almost always prepared without regard to their use as evidence in the particular examination in which they are used.

Judges and trial lawyers similarly emphasize the value of evidentiary documents prepared for reasons unrelated to a dispute. Here, the Glushko references relied upon above and the Microsoft-related documents discussed below were prepared for reasons unrelated to this patent application.

The least helpful category of evidence is testimony about the education level and work experience of an artisan. *Id.* at 5-6.

Review of Applicants' Disclosure, Conference and Technical Committee Participation

These Applicants' devoted 113 pages to their disclosure plus 16 sheets of figures. Considerable detail is provided to teach those of ordinary skill how to practice new innovation. From public appearances, these inventors had a good basis for understanding how their disclosure would be understood by those of ordinary skill.

These inventors were of extraordinary skill and in demand as speakers at conferences and leaders of technical committees. At the July 25, 1998 conference, *International Workshop on Component-based Electronic Commerce*, held at Fisher Center for Management and IT Haas School of Business, University of California Berkeley, inventor Meltzer was the Key-Note speaker and one of the Closing Panel members who addressed, "A Marketplace for EC Components - What is missing?" See, <http://groups.haas.berkeley.edu/citm/conferences/cec/> viewed Oct. 26, 2006. Inventor Glushko spoke immediately following the conference lunch. Similarly, inventor Glushko was a panelist at the Seybold conference on September 1, 1998, from which we have submitted a transcript. Inventor Glushko is now an Adjunct Professor in the School of Information and Director of the Center for Document Engineering at UC Berkeley. See <http://www.ischool.berkeley.edu/~glushko/>. Inventor Terry Allen also spoke and wrote articles. He served with Jon Bosak of Sun Microsystems on an organizing committee of

the industry Organization for the Advancement of Structured Information Standards ("OASIS") (www.oasis-open.org) and was the first chairperson, in 1999, of the Registry & Repository Technical Committee. That committee developed a draft registry specification during 1999, which it released on December 8, 1999. See, http://www.oasis-open.org/html/oasis_news_archive/oasis_draft_spec.php. It would be a mistake, contrary to *Ex parte Jud*, to treat writings by these inventors as indicating the typical level of creativity of those of ordinary skill in the art in 1998, when they were acknowledged innovators and leaders in this field of development.

The level of **ordinary** skill in the nascent art of XML web services corresponds to the audience at these conferences, not the speakers (our inventors.) Recall the audience skepticism about XML on September 1, 1998:

Audience: Is XML itself stable politically and otherwise?

Mr. Glushko: I sort of think XML is stable enough. There's a proposed recommendation from the W3C that came out in February ...

What the panelists were teaching was what they thought those of ordinary skill did not already know. What they declined to talk about (e.g., Glushko not talking about the business they were developing around the technology) implies what those of ordinary skill did not know and did not learn at the conference.

The overall influence of these inventors on an emerging software architecture is reflected in the *Registries and Repositories* document which purports to give a reasonable overview of what people were thinking about in terms of XML registries in about November 1998. See, Note/Caution at 1. Among the first nine efforts listed on page 1 of the document related to registries, Veo and these inventors were involved in six of the nine. Part of Veo's early efforts were funded by (1) NIST. Veo was a subcontractor and participant in the NIST grant under the sponsorship of CommerceNet, which also sponsored efforts (3)-(5) in the list. Veo Systems appears as (6) in the list. Inventor Terry Allen chaired the repository committee for (9) OASIS. Therefore, one should not underestimate how involved and influential these inventors were evangelizing for their new web services document interface technology.

The combination of how much detail was considered necessary in October 1998 to enable this technology, the extraordinary level of skill in the art of these inventors and

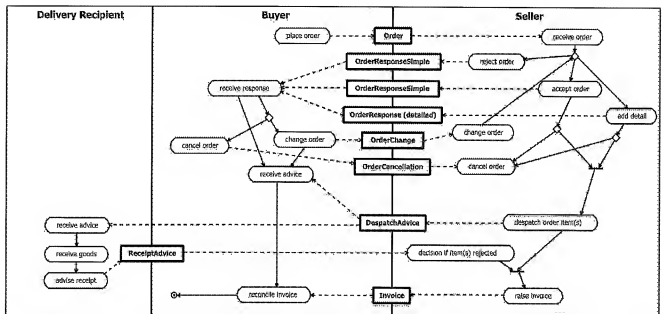
what they explained in the application but not the conferences informs our view of the level of ordinary skill in the art, following *Ex parte Jud*.

The References

In this section we use the new evidence to explore three issues: how purchase orders and invoices are understood in the industry to be connected; what those of ordinary skill in the art would have understood from Microsoft's 1998 comments on XML for ecommerce, some of which are excerpted in McKendrick; and how limited the McKendrick comment is, in light of the alternative architecture that Microsoft was advocating.

We see how the processing connection that links purchase orders and invoices came to be understood by the industry in Bosak Slide 5 (2005):

UBL order-to-invoice



Bosak's presentation given seven years after this application was filed depicts an industry consensus in an UBL order-to-invoice workflow template regarding a set of transactions, inputs and outputs that typically span the process space from a buyer placing an order to a seller sending an invoice. This evidence belies the assumption that a purchase order would be an input and an invoice would be an output to a

transaction defined by a machine readable specification that includes definitions of input and output documents. Common experience with HTML leads us to believe that a product selection screen and a checkout screen are analogous to a purchase order and an invoice. According to this new evidence, business purchasing transactions are much more complicated than consumer Internet shopping. When an XML-style interface is justified for purchasing activities, the use case is typically as Bosak depicts.

Next, we followed through on McKendrick's reporting and found a Microsoft archive document that includes the quoted phrase: The publication *XML: Enabling Next-Generation Web Applications* (April 3, 1998), at 9, includes the passage quoted by McKendrick, "Customer services are now migrating to Web sites from call centers and physical locations and will therefore benefit from the robust functionality of XML. And, because most of these business applications involve manipulation or transfer of data and database records, such as purchase orders, invoices, customer information, appointments, maps and such, XML will revolutionize end-user possibilities on the Internet by allowing a rich array of business applications to be implemented." This 15-page document is submitted for the Examiner to review. It does not teach our claimed architecture and does not actually teach software architecture. One of XML tool companies, listed at 14, took the next teaching step and at least labeled Microsoft's approach.

Dave Weiner of UserLand Software posted an article on July 14, 1998 entitled *XML-RPC for Newbies*. In this context, RPC means "remote procedure call". Weiner reports that Microsoft was promoting RPC as "the XML-based protocol [that] fits into its goal..." *Id.* at 1. Microsoft was proposing XML-RPC as a way of marshalling parameter lists for procedure calls (at 2-3); it was not using XML business documents. In this article, Weiner relied in turn on a report by Jeff Walsh, *Microsoft spearheads protocol push* (July 10, 1998), which tied RPC to the first generation of SOAP. "The Simple Object Access Protocol, or SOAP, enables Remote Procedure Calls (RPCs) to be sent as Extensible Markup Language (XML) syntax across the Web's HTTP architecture. [¶] The protocol was developed by Microsoft, UserLand Software and DevelopMentor ..."

Microsoft's teaching of XML-RPC architecture during 1998, which was vaguely reported by McKendrick, is confirmed in remarks given by Microsoft General Manager Adam Bosworth as the Opening Keynote Address of SGML/XML '98, May 18-21, 1998

in Paris. His remarks were entitled *Europe '98, Microsoft's Vision for XML*, which makes them particularly relevant to understanding McKendrick. At 4, RPC is first mentioned.

"As soon as one tries to use XML even for something really simple like transporting the arguments that an RPC implies ..." Microsoft's teaching builds from there. On 5:

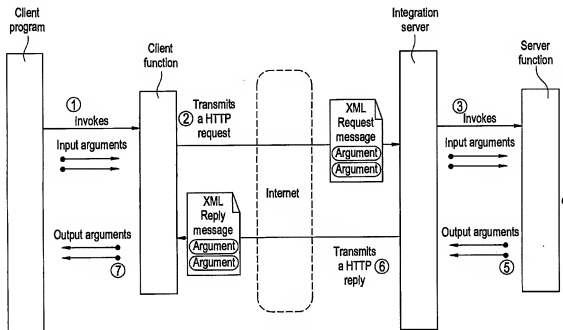
Let's imagine that the site isn't willing to support a general query language no matter how limited. What it is willing to do is expose certain URLs which when sent the appropriate parameters of Title or Author return a list of books for those Titles or Authors or both. Notice that **this is basically RPC**. Now, even in this case, the search engine would want to send the parameters to the book-purveying site in a simple, easy to engineer manner. If the "Site description" grammar assumed above **describes the desired shape of the parameters of the "method" and there is a standard grammar for marshalling parameters for RPC** or the "Site description" grammar describes the grammar of the search request, then the search engine knows what XML to send. Ideally, this **grammar for RPC** will also describe how synchronously the results may be returned and by what mechanism to allow for delayed return.

To summarize, Microsoft's GM indicated the need for several new XML grammars, with RPC possibly as an extension of Microsoft's pending XML-DATA proposal, at 6. Fifth in the list of new grammars to be developed and necessary to adoption of the emerging technology was, "Either an XML RPC proposal or extensions to the XML-IDL proposal above to describe the grammar of parameters submitted in an RPC and requisite envelope information".

Under "Predictions", at 9, Mr. Bosworth pointed developers toward a Microsoft approach that diverges sharply from the approach taken in our disclosure. "XML will become a widespread solution to interoperable RPC on the net." In boldface, the General Manager predicted, **"The programming model for building applications will change to: One in which XML is the standard message format used for transmitting data and for RPC."** *Id.* at 10 (bold facing in script for remarks).

From the new evidence, it is clear that one who explored McKendrick's vague quotation of a Microsoft document would find Microsoft advocating change in the programming model to use XML as a format for marshalling arguments and making remote procedure calls (RPC argument list.) With a bit of historical perspective, those of skill in the art (post-1998) should all agree that XML-RPC argument lists are not the same as document-style interface specifications for web services.

Regarding the nature of XML-RPC argument lists, we offer as new evidence a patent, Merrick et al. US 7,028,312 ("Merrick"), assigned to webMethods, entitled "XML Remote Procedure Call (XML-RPC)" and the provisional applications that preceded it, 60/079,100 filed March 24, 1998 and 60/096,909, filed August 17, 1998. We need not spend any time on the '100 provisional, because it does not include enough detail to afford an early priority date to any interesting disclosures in the '312 patent. In the '312 patent, we see an enabling disclosure of XML-based RPC technology, which issued as a patent. The level of detail provided in order to enable XML-RPC is much closer to the detail in our application than it is to McKendrick's 33 words. FIGS. 6 and 7, respectively, reflect the CORBA and XML-RPC approaches to remote procedure calls. The XML-RPC approach was patentable over CORBA, so we reproduce FIG. 7:



This figure depicts use of XML for argument passing. To see a format used for argument passing, which does not resemble the Business Information Documents (BIDs) disclosed in this application, we look to column 19:


```
<RPC TYPE="REQUEST">
  <VALUE NAME="accountID" TYPE="int">2001</
    VALUE>
  <VALUE NAME="zodiacSign">Aquarius</VALUE>
</RPC>
<RPC TYPE="REPLY">
  <VALUE NAME="orderNumber"
    TYPE="int">38553</VALUE>
  <VALUE NAME="fortune">XML is good for RPC</
    VALUE>
  <VALUE NAME="balance" TYPE="float">65.00</
    VALUE>
</RPC>
```

This passage illustrates a parameter list, rather than an input document and an output document. Over time, this use of XML has come to be called "rpc style", which is contrasted to "document style". Remote procedure calls have come to be considered more "tightly coupled" and document style interfaces more "loosely coupled." The code example, above, but not FIG. 7, is found in the earlier '909 provisional, so the code example but not the figure predates our filing. However, even the code example was submitted to the PTO after Glushko's conference and presentation and slides on July 25, 1998.

From the new evidence, one gets a better understanding of where Microsoft was leading and what one of ordinary skill in the art could discern from Microsoft's press. Of course, a programmer would not stop with McKendrick, because McKendrick teaches nothing about software architecture. Nor would a programmer be satisfied with the report from which McKendrick quotes, because it also is fluff. A person of ordinary skill would have looked for descriptions by Microsoft and its partners of any proposed new XML architecture that was under development.

The evidence is clear that Microsoft was leading those in the art towards use of XML for remote procedure calls, not towards a document-oriented interface. The postings and press make this clear, including a posting by an identified Microsoft partner. Significantly, RPC was the only approach that Microsoft General Manager Bosworth presented at a worldwide conference in May 1988. In the hierarchy of corporate titles, the Examiner should recognize that a General Manager ranks above a Director and that, in smaller organizations, one person often holds the titles President

and General Manager. While GM Bosworth was not Bill Gates, he was so highly placed in Microsoft's organization as to speak with authority on behalf of the corporation.

Let's apply this evidence to McKendrick. The first XML specification was released in February 1998, six months before McKendrick. McKendrick suggests a direction for new development, rather than providing an enabling disclosure – the contemporaneous patent applications provided extensive detail in order to enable the RPC style and document style interfaces. Persons of ordinary skill, at a September 1, 1998 conference asked the expert panel whether XML was stable enough, politically and otherwise, for them to use. Microsoft was suggesting use of RPC, but the details of XML for remote procedure calls were exposed by a Microsoft partner in a patent application filed in March 1999, that resulted in an issued patent. While the general notion of using XML for RPC was voiced as something to try, it was novel enough in fall 1998-spring 1999 to be patentable and a patent actually was granted. When one looks at XML-RPC, one sees a remote procedure call protocol that is much different than the claimed document interface specification, an alternative software architecture.

With the benefit of the new evidence and taking into account how one of ordinary skill in the art would respond to a 33-word report of Microsoft's new direction, it is clear that Microsoft was leading those of ordinary skill in a different direction. One of ordinary skill in the art would not find McKendrick to be an enabling disclosure of the claimed interface specification or even a suggestion in the direction that these inventors led, away from Microsoft's approach. The development efforts under way in 1998 were ground breaking and inventive, including work both on XML-RPC and these inventors' work on a document interface. These inventors were of extraordinary skill, they were the people to whom the industry looked to set a new direction. They set a new direction that has been widely accepted. The direction they set, which is reflected in these claims, is patentable over a 33-word report of Microsoft's other direction.

CONCLUSION

To review, we have presented considerable new evidence at the invitation of the Board, to be reviewed without prejudice because the Board did not consider any of it.

McKendrick is removed as a reference, both by the newly presented July 25, 1998 actual reduction to practice in Slide 30 and by the combination of new evidence with the declarations.

Moreover, the new evidence regarding the levels of ordinary skill in the art are where Microsoft actually was steering development makes it clear that McKendrick's 33 words do not enable the new technology claimed in a 129-page application.

Applicants respectfully submit that the pending claims are now in condition for allowance and thereby solicit acceptance of the claims as now stated.

Applicants would welcome an interview, if the Examiner is so inclined. The undersigned can ordinarily be reached at his office at (650) 712-0340 from 8:30 a.m. to 5:30 p.m. PST, Monday through Friday, and can be reached at his cell phone at (415) 902-6112 most other times.

Fee Authorization. The Commissioner is hereby authorized to charge underpayment of any additional fees or credit any overpayment associated with this communication to Deposit Account No. 50-0869 (OIN 1004-1). A duplicate copy of this authorization is enclosed.

Respectfully submitted,

Dated: July 23, 2007

/Ernest J. Beffel, Jr./
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EVIDENCE APPENDIX

Each of the documents listed has been separately uploaded into Private PAIR as Non-Patent Literature.

Allen, *Common Business Library (CBL)* (May 1999) accessed at <http://www.infoloom.com/gcaconfs/WEB/granada99/all.HTM> on July 20, 2007, 9 pp.

Bosak, *UBL Update*, OASIS Symposium on the Future of XML Vocabularies, slide 3 (Apr. 25, 2005) viewed at www.oasis-open.org/events/symposium_2005/slides/bosak.pdf on July 20, 2007, 10 pp.

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